

What is Claimed is:

1. A method of producing a membrane electrode assembly for use in direct methanol fuel cells comprising:
- (a) serigraphically printing a cathode carbon backing layer on graphite or carbon paper;
 - (b) boiling the printed cathode carbon backing layer and graphite or carbon paper;
 - (c) serigraphically printing a carbon cathode catalyst onto the boiled, printed carbon backing layer and graphite or carbon paper to produce a cathode layer;
 - (d) boiling the cathode layer;
 - (e) serigraphically printing an anode carbon backing layer on graphite or carbon papers;
 - (f) boiling the printed anode carbon backing layer and graphite or carbon paper;
 - (g) serigraphically printing a carbon anode catalyst onto the boiled, printed anode carbon backing layer and graphite or carbon paper to produce an anode layer;
 - (h) boiling the anode layer;
 - (I) inserting a polymer electrolyte membrane between the boiled cathode layer and boiled anode layer and placing the membrane and cathode and anode layers into a constraint which restricts volume and lateral defamation; and
 - (j) semi-isostatically compressing the membrane and cathode and anode layers into a membrane electrode assembly.
2. A membrane electrode assembly for use in direct methanol fuel cells produced in accordance with the method of claim 1.